



Tierra Solutions, Inc. via US Mail and Electronic Mail

February 24, 2017

Mr. Jeffrey Thein
New Jersey Department of Environmental Protection
Division of Water Quality Bureau of Point Source Permitting – Region One
P.O. Box 029
Trenton, New Jersey 08625-0029

Re: Discharge Monitoring Report for January 2017
Diamond Alkali Superfund Site
Newark, New Jersey

Dear Mr. Thein:

In accordance with the New Jersey Pollutant Discharge Elimination System (NJPDDES) Discharge to Surface Water (DSW) Permit Equivalent, dated May 2, 2000, for the Diamond Alkali Superfund Site in Newark, New Jersey, Tierra Solutions, Inc. (Tierra, formerly Chemical Land Holdings, Inc.) has prepared the Discharge Monitoring Report (DMR) for the month of January 2017 (Attachment 1). Tierra is currently extracting and treating groundwater in the on-site water treatment system and directly discharging effluent to the Passaic River.


The effluent is sampled once per month and analyzed for the chemical constituents listed in the NJPDDES DSW Permit Equivalent. The analytical results for each sample are validated and the constituent concentrations are compared against the concentration limits established in the NJPDDES DSW Permit Equivalent. The analytical results are representative of the effluent discharged throughout the month.

In January 2017, 60,460 gallons of groundwater were treated and discharged to the Passaic River. The direct discharge of treated effluent was limited to periods of high tide when the adjacent mud flats were not exposed. A flow meter was used to record the volume of treated effluent discharged to the river.

A summary of the analytical results for the January 2017 treated effluent and the corresponding monthly average and daily maximum permit limit concentration for each chemical constituent is included in Attachment 2.

If you should have any questions related to the DMR, please call me at (732) 579-7586.

Sincerely,



Brian Mikucki
On behalf of Occidental Chemical Corporation
(as successor to Diamond Shamrock Chemicals Company)

Enclosures

Cc: Ms. Elizabeth Butler
New Jersey Superfund Branch – 2
Emergency and Remedial Response Division
U.S. Environmental Protection Agency, Region II
290 Broadway, 20th Floor
New York, New York 10007-1866

Mr. Jay Nickerson
Bureau of Case Management, Site Remediation Program
Mail Code 401-05F
P.O. Box 420
Trenton, New Jersey 08625-0420

Glenn Springs Holdings, Inc.
5 Greenway Plaza, Suite 110
Houston, TX 77046
Attention: Juan Somoano

Attachment 1

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved

OMB No. 2040-0004

NAME Tierra Solutions, Inc. (formerly
Chemical Land Holdings, Inc.)NJPDES DSW Permit Equivalent –
May 2000

ADDRESS Two Tower Center Boulevard
10th Floor

PERMIT NUMBER

DISCHARGE NUMBER

East Brunswick, NJ 08816

FACILITY Diamond Alkali Superfund Site

LOCATION Newark, Essex County, NJ

FROM

MONITORING PERIOD

| YEAR | MO | DAY | TO | YEAR | MO | DAY |
|------|----|-----|----|------|----|-----|
| 2017 | 01 | 01 | | 2017 | 01 | 31 |

☐ Check here if no Discharge.Note: Read Instructions before
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| PARAMETER | | QUANTITY OR LOADING | | | QUALITY OR CONCENTRATION | | | | NO. EX | FREQUENCY OF ANALYSIS | SAMPLE TYPE |
|--|--------------------|---|---------|-------|--------------------------|--|---------|---------|--------|-----------------------|-------------|
| | | AVERAGE | MAXIMUM | UNITS | MINIMUM | AVERAGE | MAXIMUM | UNITS | | | |
| Flow | SAMPLE | 60460 | 9446 | GPD | ---- | ---- | ---- | ---- | 0 | 1/30 | Flow Meter |
| | PERMIT REQUIREMENT | NL ¹ | NL | | ---- | ---- | ---- | | 0 | 1/30 | Flow Meter |
| Total Suspended Solids | SAMPLE | ---- | ---- | ---- | N/A | 3.0 U | 3.0 U | mg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | | N/A | 30 | 50 | | 0 | 1/30 | Grab |
| Total Organic Carbon | SAMPLE | ---- | ---- | ---- | N/A | 1.0 U | 1.0 U | mg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | | N/A | NL | 40 | | 0 | 1/30 | Grab |
| Petroleum Hydrocarbons | SAMPLE | ---- | ---- | ---- | N/A | 5.0 UJL | 5.0 UJL | mg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | | N/A | 10 | 15 | | 0 | 1/30 | Grab |
| pH | SAMPLE | ---- | ---- | ---- | 7.16 | NA | 7.98 | SU | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | | 6 | NL | 9 | | 0 | 1/30 | Grab |
| 2,4,6-Trichlorophenol | SAMPLE | ---- | ---- | ---- | N/A | 5.0 U | 5.0 U | µg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | | N/A | 115 | 260 | | 0 | 1/30 | Grab |
| 2-Chlorophenol | SAMPLE | ---- | ---- | ---- | N/A | 5.0 U | 5.0 U | µg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | | N/A | 35 | 125 | | 0 | 1/30 | Grab |
| NAME/TITLE PRINCIPAL EXECUTIVE OFFICER | | I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. | | | | TELEPHONE | | DATE | | | |
| Brian Mikucki Project Coordinator | | | | | | (732) 579-7586 | | 2017 02 | | 24 | |
| TYPED OR PRINTED | | | | | | SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT | | AREA | NUMBER | YEAR | MO |

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here) 1) The flow quantity is actually the total flow discharged for the entire month. 2) NL – Not Limited. 3) N/A – Not Applicable.
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| | | AVERAGE | MAXIMUM | UNITS | MINIMUM | AVERAGE | MAXIMUM | UNITS | | | |
| 2,4-Dichlorophenol | SAMPLE | ---- | ---- | ---- | N/A | 5.0 U | 5.0 U | µg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | ---- | N/A | 23 | 150 | µg/l | 0 | 1/30 | Grab |
| Phenol | SAMPLE | ---- | ---- | ---- | N/A | 23 U | 23 U | µg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | ---- | N/A | 23 | 40 | µg/l | 0 | 1/30 | Grab |
| 1,2,4-Trichlorobenzene | SAMPLE | ---- | ---- | ---- | N/A | 5.0 U | 5.0 U | µg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | ---- | N/A | 45 | 90 | µg/l | 0 | 1/30 | Grab |
| Hexachlorobenzene | SAMPLE | 5.1E-04 | 8.7E-04 | lbs/d | N/A | 22 U | 22 U | µg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | NL | 16.3 | ay | N/A | 22 | 40 | µg/l | 0 | 1/30 | Grab |
| 1,2-Dichlorobenzene | SAMPLE | ---- | ---- | ---- | N/A | 5.0 U | 5.0 U | µg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | ---- | N/A | 40 | 110 | µg/l | 0 | 1/30 | Grab |
| 1,3-Dichlorobenzene | SAMPLE | ---- | ---- | ---- | N/A | 5.0 U | 5.0 U | µg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | ---- | N/A | 25 | 35 | µg/l | 0 | 1/30 | Grab |
| 1,4-Dichlorobenzene | SAMPLE | ---- | ---- | ---- | N/A | 5.0 U | 5.0 U | µg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | ---- | N/A | 18 | 45 | µg/l | 0 | 1/30 | Grab |
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| | | AVERAGE | MAXIMUM | UNITS | MINIMUM | AVERAGE | MAXIMUM | UNITS | | | |
| Fluoranthene | SAMPLE | ---- | ---- | ---- | N/A | 10 U | 10 U | µg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | ---- | N/A | NL | 16 | | 0 | 1/30 | Grab |
| Naphthalene | SAMPLE | ---- | ---- | ---- | N/A | 5.0 U | 5.0 U | µg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | ---- | N/A | 35 | 105 | | 0 | 1/30 | Grab |
| Phenanthrene | SAMPLE | ---- | ---- | ---- | N/A | 5.0 U | 5.0 U | µg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | ---- | N/A | 35 | 105 | | 0 | 1/30 | Grab |
| Benzene | SAMPLE | ---- | ---- | ---- | N/A | 5.0 U | 5.0 U | µg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | ---- | N/A | 21 | 57 | | 0 | 1/30 | Grab |
| Chlorobenzene | SAMPLE | ---- | ---- | ---- | N/A | 5.0 UJL | 5.0 U | µg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | ---- | N/A | 23 | 45 | | 0 | 1/30 | Grab |
| 1,2-Dichloroethane | SAMPLE | ---- | ---- | ---- | N/A | 5.0 U | 5.0 U | µg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | ---- | N/A | 30 | 85 | | 0 | 1/30 | Grab |
| 1,1,1-Trichloroethane | SAMPLE | ---- | ---- | ---- | N/A | 5.0 U | 5.0 U | µg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | ---- | N/A | 25 | 65 | | 0 | 1/30 | Grab |
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| | | AVERAGE | MAXIMUM | UNITS | MINIMUM | AVERAGE | MAXIMUM | UNITS | | | |
| 1,1-Dichloroethane | SAMPLE | ---- | ---- | ---- | N/A | 5.0 U | 5.0 U | µg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | ---- | N/A | 25 | 65 | µg/l | 0 | 1/30 | Grab |
| Chloroform | SAMPLE | ---- | ---- | ---- | N/A | 5.0 U | 5.0 U | µg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | ---- | N/A | 20 | 40 | µg/l | 0 | 1/30 | Grab |
| Trans-1,2-Dichloroethene | SAMPLE | ---- | ---- | ---- | N/A | 5.0 U | 5.0 U | µg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | ---- | N/A | 25 | 65 | µg/l | 0 | 1/30 | Grab |
| Ethyl Benzene | SAMPLE | ---- | ---- | ---- | N/A | 5.0 U | 5.0 U | µg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | ---- | N/A | -- | 430 | µg/l | 0 | 1/30 | Grab |
| Toluene | SAMPLE | ---- | ---- | ---- | N/A | 5.0 U | 5.0 U | µg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | ---- | N/A | 18 | 35 | µg/l | 0 | 1/30 | Grab |
| Trichloroethene | SAMPLE | ---- | ---- | ---- | N/A | 5.0 U/L | 5.0 U | µg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | ---- | N/A | 25 | 65 | µg/l | 0 | 1/30 | Grab |
| Vinyl Chloride | SAMPLE | ---- | ---- | ---- | N/A | 5.0 U | 5.0 U | µg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | ---- | N/A | 25 | 65 | µg/l | 0 | 1/30 | Grab |
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| | | AVERAGE | MAXIMUM | UNITS | MINIMUM | AVERAGE | MAXIMUM | UNITS | | | |
| 4,4-DDT | SAMPLE | 7.8E-06 | 1.3E-05 | lbs/d | N/A | 0.34 U | 0.34 U | μg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | NL | 0.25 | ay | N/A | NL | 0.34 | | 0 | 1/30 | Grab |
| 4,4-DDE | SAMPLE | ---- | ---- | ---- | N/A | 0.35 U | 0.35 U | μg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | | N/A | NL | 14 | | 0 | 1/30 | Grab |
| Alpha-endosulfan | SAMPLE | ---- | ---- | ---- | N/A | 0.050 U | 0.050 U | μg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | | N/A | 32 | 90 | | 0 | 1/30 | Grab |
| 2,4-D | SAMPLE | ---- | ---- | ---- | N/A | 11 UJ | 11 UJ | μg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | | N/A | 1,500 | 3,300 | | 0 | 1/30 | Grab |
| 2,4-DB | SAMPLE | ---- | ---- | ---- | N/A | 16 UJ | 16 UJ | μg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | | N/A | 17 | 25 | | 0 | 1/30 | Grab |
| Dinoseb (DNBP) | SAMPLE | ---- | ---- | ---- | N/A | 1.6 UJL | 1.6 UJL | μg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | | N/A | 420 | 790 | | 0 | 1/30 | Grab |
| Dioxin (2,3,7,8-TCDD) | SAMPLE | 1.9E-09 | 3.2E-09 | lbs/d | N/A | 0.000081 U | 0.000081 U | μg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | NL | 0.00006 | ay | N/A | NL | 0.000081 | | 0 | 1/30 | Grab |
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| | | AVERAGE | MAXIMUM | UNITS | MINIMUM | AVERAGE | MAXIMUM | UNITS | | | |
| Total Recoverable Antimony | SAMPLE | ---- | ---- | ---- | N/A | 60 U | 60 U | µg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | ---- | N/A | 200 | 305 | | 0 | 1/30 | Grab |
| Total Recoverable Arsenic | SAMPLE | ---- | ---- | ---- | N/A | 12 | 12 | µg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | ---- | N/A | 50 | 115 | | 0 | 1/30 | Grab |
| Total Recoverable Beryllium | SAMPLE | ---- | ---- | ---- | N/A | 8.6 U | 8.6 U | µg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | ---- | N/A | NL | 8.6 | | 0 | 1/30 | Grab |
| Total Recoverable Cadmium | SAMPLE | ---- | ---- | ---- | N/A | 31 U | 31 U | µg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | ---- | N/A | NL | 31 | | 0 | 1/30 | Grab |
| Hexavalent Chromium | SAMPLE | ---- | ---- | ---- | N/A | 44 U | 44 U | µg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | ---- | N/A | NL | 66 | | 0 | 1/30 | Grab |
| Trivalent Chromium | SAMPLE | ---- | ---- | ---- | N/A | 10 U | 10 U | µg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | ---- | N/A | NL | 44 | | 0 | 1/30 | Grab |
| Total Recoverable Copper | SAMPLE | ---- | ---- | ---- | N/A | 62 U | 62 U | µg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | ---- | N/A | NL | 62 | | 0 | 1/30 | Grab |
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completing this form.

| PARAMETER | | QUANTITY OR LOADING | | | QUALITY OR CONCENTRATION | | | | NO. EX | FREQUENCY OF ANALYSIS | SAMPLE TYPE |
|--|-----------------------|---|---------|-------|--------------------------|---|---------|-------|-----------|-----------------------------|----------------|
| | | AVERAGE | MAXIMUM | UNITS | MINIMUM | AVERAGE | MAXIMUM | UNITS | | | |
| Total Recoverable Lead | SAMPLE | ---- | ---- | ---- | N/A | 18 U | 18 U | µg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | | N/A | NL | 18 | | 0 | 1/30 | Grab |
| Total Recoverable Mercury | SAMPLE | ---- | ---- | ---- | N/A | 3.4 U | 3.4 U | µg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | | N/A | NL | 3.4 | | 0 | 1/30 | Grab |
| Total Recoverable Nickel | SAMPLE | ---- | ---- | ---- | N/A | 73 U | 73 U | µg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | | N/A | NL | 73 | | 0 | 1/30 | Grab |
| Total Recoverable Silver | SAMPLE | ---- | ---- | ---- | N/A | 69 U | 69 U | µg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | | N/A | NL | 69 | | 0 | 1/30 | Grab |
| Total Recoverable Zinc | SAMPLE | ---- | ---- | ---- | N/A | 47 U | 47 U | µg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | | N/A | NL | 47 | | 0 | 1/30 | Grab |
| Total Cyanide | SAMPLE | ---- | ---- | ---- | N/A | 78 U | 78 U | µg/l | 0 | 1/30 | Grab |
| | PERMIT REQUIREMENT | ---- | ---- | | N/A | NL | 78 | | 0 | 1/30 | Grab |
| ---- | SAMPLE | ---- | ---- | ---- | N/A | ---- | ---- | ---- | ---- | ---- | ---- |
| | PERMIT REQUIREMENT | ---- | ---- | | N/A | ---- | ---- | | ---- | ---- | ---- |
| NAME/TITLE PRINCIPAL EXECUTIVE OFFICER | | I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. | | | | TELEPHONE | | DATE | | | |
| Brian Mikucki Project Coordinator | | | | | | (732) 579-7586 2017 02 | | 24 | | | |
| TYPED OR PRINTED | | | | | | SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT | | AREA | NUMBER | YEAR | MO |

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here) 1) The flow quantity is actually the total flow discharged for the entire month. 2) NL – Not Limited. 3) N/A – Not Applicable.
4) U – Constituent Analyzed, but Not Detected. 5) GPD – Gallons per Day. 6) lbs/day – pounds/day. 7) J – Detection limit is estimated.

ATTACHMENT 2

JUNE 2016 SUPPLEMENTAL TABLE FOR MONTHLY DISCHARGE MONITORING REPORT
DIAMOND ALKALI SUPERFUND SITE
NEWARK, NEW JERSEY

| Constituent | Permit Limitation | | Sample ID: | W-TSI-EFF-010517 | W-TSI-EFF-DUP010517 | TB-010517-710R |
|-----------------------------|-------------------|-----------|--------------|------------------|---------------------|----------------|
| | | | Sample Date: | 1/5/2017 | 1/5/2017 | 1/5/2017 |
| | | | SDG Number : | LISTER710R | LISTER710R | LISTER710R |
| | Monthly Avg. | Daily Max | Units | Effluent | Effluent Duplicate | Trip Blank |
| Total Suspended Solids(TSS) | 30 | 50 | mg/l | 3.0 U | 3.0 U | - |
| Total Organic Carbon (TOC) | - | 40 | mg/l | 1.0 U | 1.0 U | - |
| Petroleum Hydrocarbons | 10 | 15 | mg/l | 5.0 ULL | 5.0 ULL | - |
| pH | - | 6 - 9 | SU | 7.5 | 7.50 | - |
| 2,4,6-Trichlorophenol | 115 | 260 | µg/l | 5.0 U | 5.0 U | - |
| 2-Chlorophenol | 35 | 125 | µg/l | 5.0 U | 5.0 U | - |
| 2,4-Dichlorophenol | 23 | 150 | µg/l | 5.0 U | 5.0 U | - |
| Phenol | 23 | 40 | µg/l | 23 U | 23 U | - |
| 1,2,4-Trichlorobenzene | 45 | 90 | µg/l | 5.0 U | 5.0 U | 5.0 U |
| Hexachlorobenzene | 22 | 40 | µg/l | 22 U | 22 U | - |
| 1,2-Dichlorobenzene | 40 | 110 | µg/l | 5.0 U | 5.0 U | 5.0 U |
| 1,3-Dichlorobenzene | 25 | 35 | µg/l | 5.0 U | 5.0 U | 5.0 U |
| 1,4-Dichlorobenzene | 18 | 45 | µg/l | 5.0 U | 5.0 U | 5.0 U |
| Fluoranthene | - | 16 | µg/l | 10 U | 10 U | - |
| Naphthalene | 35 | 105 | µg/l | 5.0 U | 5.0 U | - |
| Phenanthrene | 35 | 105 | µg/l | 5.0 U | 5.0 U | - |
| Benzene | 21 | 57 | µg/l | 5.0 U | 5.0 U | 5.0 U |
| Chlorobenzene | 23 | 45 | µg/l | 5.0 ULL | 5.0 U | 5.0 U |
| 1,2-Dichloroethane | 30 | 85 | µg/l | 5.0 U | 5.0 U | 5.0 U |
| 1,1,1-Trichloroethane | 25 | 65 | µg/l | 5.0 U | 5.0 U | 5.0 U |
| 1,1-Dichloroethane | 25 | 65 | µg/l | 5.0 U | 5.0 U | 5.0 U |
| Chloroform | 20 | 40 | µg/l | 5.0 U | 5.0 U | 5.0 U |
| 1,2-Dichloroethene (Total) | 25 | 65 | µg/l | 5 U | 5 U | - |
| trans-1,2-Dichloroethene | 25 | 65 | µg/l | 5.0 U | 5.0 U | 5.0 U |
| Ethylbenzene | - | 430 | µg/l | 5.0 U | 5.0 U | 5.0 U |
| Toluene | 18 | 35 | µg/l | 5.0 U | 5.0 U | 5.0 U |
| Trichloroethene | 25 | 65 | µg/l | 5.0 ULL | 5.0 U | 5.0 U |
| Vinyl Chloride | 25 | 65 | µg/l | 5.0 U | 5.0 U | 5.0 U |
| 4,4-DDT | - | 0.34 | µg/l | 0.34 U | 0.34 U | - |
| 4,4-DDE | - | 14 | µg/l | 0.35 U | 0.35 U | - |
| Endosulfan I | 32 | 90 | µg/l | 0.050 U | 0.050 U | - |
| 2,4-D | 1,500 | 3,300 | µg/l | 11 U | 11 U | - |
| 2,4-DB | 17 | 25 | µg/l | 16 U | 16 U | - |
| Dinoseb (DNBP) | 420 | 790 | µg/l | 1.6 ULL | 1.6 ULL | - |
| Dioxin (2,3,7,8-TCDD) | - | 0.000081 | µg/l | 0.000081 U | 0.000081 U | - |
| Total Recoverable Antimony | 200 | 305 | µg/l | 60 U | 60 U | - |
| Total Recoverable Arsenic | 50 | 115 | µg/l | 12 | 12 | - |
| Total Recoverable Beryllium | - | 8.6 | µg/l | 8.6 U | 8.6 U | - |
| Total Recoverable Cadmium | - | 31 | µg/l | 31 U | 31 U | - |
| Hexavalent Chromium | - | 66 | µg/l | 44 U | 44 U | - |
| Trivalent Chromium * | - | 44 | µg/l | 10 U | 10 U | - |
| Total Recoverable Copper | - | 62 | µg/l | 62 U | 62 U | - |
| Total Recoverable Lead | - | 18 | µg/l | 18 U | 18 U | - |
| Total Recoverable Mercury | - | 3.4 | µg/l | 3.4 U | 3.4 U | - |
| Total Recoverable Nickel | - | 73 | µg/l | 73 U | 73 U | - |
| Total Recoverable Silver | - | 69 | µg/l | 69 U | 69 U | - |
| Total Recoverable Zinc | - | 47 | µg/l | 47 U | 47 U | - |
| Total Cyanide | - | 78 | µg/l | 78 U | 78 U | - |

Notes:

mg/l - Milligrams/liter

µg/l - Micrograms/liter

SU - Standard units

-- - Not applicable

U - Constituent was not detected above the associated detection limit

U - Constituent was not detected above the associated detection limit.

UJ - The material was analyzed for, but was not detected. The sample quantitation limit is an estimated quantity.

ULL - The material was analyzed for, but was not detected. The sample quantitation limit is an estimated quantity. Low bias is indicated.

* Trivalent Chromium Concentration is calculated based on the total and hexavalent chromium results.

JANUARY 2017 MONTHLY DISCHARGE ANALYTICAL DATA SUMMARY
DIAMOND ALKALI SUPERFUND SITE
NEWARK, NEW JERSEY

| Constituent | Permit Limitation | | Sample ID: WTSI-EFF-010517 | | Monthly Average ⁽¹⁾ | Daily Maximum |
|--------------------------------|-------------------|-----------|----------------------------|----------------------|--------------------------------|---------------|
| | Monthly Avg. | Daily Max | SDG Number: Units | LISTER 710R Effluent | | |
| Flow | — | — | GPD | — | 60,460 | 9,446 |
| Total Suspended Solids(TSS) | 30 | 50 | mg/l | 3.0 U | 3.0 U | 3.0 U |
| Total Organic Carbon (TOC) | — | 40 | mg/l | 1.0 U | 1.0 U | 1.0 U |
| Petroleum Hydrocarbons | 10 | 15 | mg/l | 5.0 U/L | 5.0 U/L | 5.0 U/L |
| Field pH Range (January, 2017) | — | 6 - 9 | SU | 7.06 - 7.98 | NA | 7.98 |
| 2,4,6-Trichlorophenol | 115 | 260 | µg/l | 5.0 U | 5.0 U | 5.0 U |
| 2-Chlorophenol | 35 | 125 | µg/l | 5.0 U | 5.0 U | 5.0 U |
| 2,4-Dichlorophenol | 23 | 150 | µg/l | 5.0 U | 5.0 U | 5.0 U |
| Phenol | 23 | 40 | µg/l | 23 U | 23 U | 23 U |
| 1,2,4-Trichlorobenzene | 45 | 90 | µg/l | 5.0 U | 5.0 U | 5.0 U |
| Hexachlorobenzene | 22 | 40 | µg/l | 22 U | 22 U | 22 U |
| Hexachlorobenzene | — | 16.3 | lbs/d | NA | 5.1E-04 | 8.7E-04 |
| 1,2-Dichlorobenzene | 40 | 110 | µg/l | 5.0 U | 5.0 U | 5.0 U |
| 1,3-Dichlorobenzene | 25 | 35 | µg/l | 5.0 U | 5.0 U | 5.0 U |
| 1,4-Dichlorobenzene | 18 | 45 | µg/l | 5.0 U | 5.0 U | 5.0 U |
| Fluoranthene | — | 16 | µg/l | 10 U | 10.0 U | 10 U |
| Naphthalene | 35 | 105 | µg/l | 5.0 U | 5.0 U | 5.0 U |
| Phenanthrene | 35 | 105 | µg/l | 5.0 U | 5.0 U | 5.0 U |
| Benzene | 21 | 57 | µg/l | 5.0 U | 5.0 U | 5.0 U |
| Chlorobenzene | 23 | 45 | µg/l | 5.0 U/L | 5.0 U/L | 5.0 U |
| 1,2-Dichloroethane | 30 | 85 | µg/l | 5.0 U | 5.0 U | 5.0 U |
| 1,1,1-Trichloroethane | 25 | 65 | µg/l | 5.0 U | 5.0 U | 5.0 U |
| 1,1-Dichloroethane | 25 | 65 | µg/l | 5.0 U | 5.0 U | 5.0 U |
| Chloroform | 20 | 40 | µg/l | 5.0 U | 5.0 U | 5.0 U |
| 1,2-Dichloroethene (Total) | 25 | 65 | µg/l | 5.0 U | 5.0 U | 5.0 U |
| trans-1,2-Dichloroethene | 25 | 65 | µg/l | 5.0 U | 5.0 U | 5.0 U |
| Ethylbenzene | — | 430 | µg/l | 5.0 U | 5.0 U | 5.0 U |
| Toluene | 18 | 35 | µg/l | 5.0 U | 5.0 U | 5.0 U |
| Trichloroethene | 25 | 65 | µg/l | 5.0 U/L | 5.0 U/L | 5.0 U |
| Vinyl Chloride | 25 | 65 | µg/l | 5.0 U | 5.0 U | 5.0 U |
| 4,4-DDT | — | 0.34 | µg/l | 0.34 U | 0.34 U | 0.34 U |
| 4,4-DDT | — | 0.25 | lbs/d | NA | 7.8E-06 | 1.3E-05 |
| 4,4-DDE | — | 14 | µg/l | 0.35 U | 0.35 U | 0.35 U |
| Endosulfan I | 32 | 90 | µg/l | 0.050 U | 0.050 U | 0.050 U |
| 2,4-D | 1,500 | 3,300 | µg/l | 11 U | 11.0 U | 11 U |
| 2,4-DB | 17 | 25 | µg/l | 16 U | 16.0 U | 16 U |
| Dinoseb (DNBP) | 420 | 790 | µg/l | 1.6 U/L | 1.6 U/L | 1.6 U/L |
| Dioxin (2,3,7,8-TCDD) | — | 0.000081 | µg/l | 0.000081 U | 0.000081 U | 0.000081 U |
| Dioxin | — | 0.00006 | lbs/d | NA | 1.9E-09 | 3.2E-09 |
| Total Recoverable Antimony | 200 | 305 | µg/l | 60 U | 60 U | 60 U |
| Total Recoverable Arsenic | 50 | 115 | µg/l | 12 | 12 | 12 |
| Total Recoverable Beryllium | — | 8.6 | µg/l | 8.6 U | 8.6 U | 8.6 U |
| Total Recoverable Cadmium | — | 31 | µg/l | 31 U | 31 U | 31 U |
| Hexavalent Chromium | — | 66 | µg/l | 44 U | 44 U | 44 U |
| Trivalent Chromium | — | 44 | µg/l | 10 U | 10 U | 10 U |
| Total Recoverable Copper | — | 62 | µg/l | 62 U | 62 U | 62 U |
| Total Recoverable Lead | — | 18 | µg/l | 18 U | 18 U | 18 U |
| Total Recoverable Mercury | — | 3.4 | µg/l | 3.4 U | 3.4 U | 3.4 U |
| Total Recoverable Nickel | — | 73 | µg/l | 73 U | 73 U | 73 U |
| Total Recoverable Silver | — | 69 | µg/l | 69 U | 69 U | 69 U |
| Total Recoverable Zinc | — | 47 | µg/l | 47 U | 47 U | 47 U |
| Total Cyanide | — | 78 | µg/l | 78 U | 78 U | 78 U |

Notes:

GPD - Gallons per day

mg/l - Milligrams/liter

µg/l - Micrograms/liter

SU - Standard units

— - Not applicable

U - Constituent was not detected above the associated detection limit.

UJ - The material was analyzed for, but was not detected. The sample quantitation limit is an estimated quantity.

U/L - The material was analyzed for, but was not detected. The sample quantitation limit is an estimated quantity. Low bias is indicated.

(1) A Monthly Average Flow value is not calculated; value presented is the actual total flow (in gallons) for the month.

Monthly averages are based on 1/2 the detection limit, where applicable.

The mass loadings for hexachlorobenzene, 4,4-DDT, and 2,3,7,8-TCDD (dioxin) were calculated based on 1/2 of the detection limit.